

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
7 April 2005 (07.04.2005)

PCT

(10) International Publication Number
WO 2005/030818 A3

(51) International Patent Classification⁷: C08F 110/02, 4/70, 2/00

(21) International Application Number: PCT/EP2004/052291

(22) International Filing Date: 23 September 2004 (23.09.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 03 11391 29 September 2003 (29.09.2003) FR

(71) Applicants (for all designated States except US): TOTAL PETROCHEMICALS RESEARCH FELUY [BE/BE]; Zone Industrielle C, B-7181 Seneffe (Feluy) (BE). CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE [FR/FR]; 3, Rue Michel Ange, F-75016 Paris (FR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): LAVASTRE, Olivier [FR/FR]; La Mazure, F-35490 Gahard (FR). GALLARD, Laurent [FR/FR]; L'Isle, 11, Rue des Pêcheurs, F-79170 Villiers sur Chizé (FR). RAZAVI, Abbas [IR/BE]; 35, Domaine de la Brisée, B-7000 Mons (BE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:

11 August 2005



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2005/030818 A3

(54) Title: BIMODAL POLYETHYLENE

(57) Abstract: The present invention discloses a method for preparing a catalyst component suitable for the preparation of bimodal polymers that comprises the steps of: a) providing hollow beads of polyethylene of controlled morphology and size; b) drying the hollow beads under vacuum; c) impregnating the dried hollow beads with a concentrated solution of the desired catalyst component under vacuum; d) submitting the impregnated hollow beads to atmospheric pressure; e) draining excess liquid; f) drying under inert gas at atmospheric pressure. It also discloses a method for preparing bimodal polymers that uses the new catalyst component catalyst.